



**Fostering Meaningful Learning in Third Graders: Implications for Foreign Language
Teaching**

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Abstract

The goal of this study was to improve the acquisition and retention of English vocabulary among third-grade EFL students at IESA by integrating Ausubel's meaningful learning theory with challenge-based instruction. The study included qualitative techniques, such as student feedback, teacher journals, and classroom observations. The results showed that using interactive challenges and gestures greatly increased students' capacity to relate new words to what they already knew, which improved comprehension and retention. The study also pointed out that time restrictions made it difficult to completely execute the challenge-based strategy. Despite challenges, the experiences showed how this method may be used to generate chances for meaningful learning through involvement and active participation.

Keywords: EFL, vocabulary acquisition, challenge-based learning, meaningful learning, elementary education.

Resumen

El objetivo de este estudio fue mejorar la adquisición y retención de vocabulario en inglés entre los estudiantes de tercer grado de EFL en el IESA mediante la integración de la teoría del aprendizaje significativo de Ausubel con la instrucción basada en retos. El estudio incluyó técnicas cualitativas, como la retroalimentación de los estudiantes, diarios de los maestros y observaciones de clase. Los resultados mostraron que el uso de retos interactivos y gestos aumentaba en gran medida la capacidad de los estudiantes para relacionar palabras nuevas con lo que ya sabían, lo que mejoraba la comprensión y la retención. El estudio también señaló que las restricciones de tiempo dificultaron la ejecución completa de la estrategia basada en retos. A pesar de las dificultades, las experiencias mostraron cómo este método puede utilizarse para generar oportunidades de aprendizaje significativo mediante la promoción del interés y la participación activa.

Palabras clave: EFL, adquisición de vocabulario, aprendizaje basado en retos, aprendizaje significativo, educación primaria.

Introduction

Vocabulary acquisition and retention are critical challenges in English as a Foreign Language (EFL) education, particularly for young learners with limited exposure to the language. This action research project examined how integrating Ausubel's meaningful learning theory through challenge-based teaching can enhance English vocabulary retention and acquisition among third-grade EFL learners at Institución Educativa San Agustín, a public Medellín school.

The project employed an action research method, originally planned as an 8-week intervention, but was later adapted into five key activities focusing on a unit that covered technology vocabulary and adjectives due to time constraints. The interventions used gesture-based learning and interactive games aiming to encourage active engagement and connect new vocabulary with students' prior knowledge while being cautious to not disrupt existing classroom dynamics. This report details the research process and includes the interventions, data analyses, and results showcasing its significance for EFL teaching by informing how integrating meaningful learning theories with challenge-based methods can enhance vocabulary retention and acquisition in resource-constrained settings.

Description of the context

This project was conducted at the educational institution San Agustín (IESA), a public school in the Aranjuez neighborhood in the northeast of Medellín. The school's registry indicates a current enrollment of 884 students. The institution was founded in 1950 under the name "Lydice y Tomás Carrasquilla". In 1959, it became "Escuela para Varones San Agustín" and changed its official denomination to an educational institution in 2002, becoming what we know today.

IESA's mission and vision outline a commitment to fostering a diverse and inclusive educational environment focused on developing academic excellence and nurturing artistic, research, and technological skills among all students. The institutional mission states that the educational institution promotes social, artistic, research, and technological skills in all students, promoting social interaction based on responsibility, respect, and solidarity, regardless of their physical, mental, social, ethnic, or religious condition. Their vision states that by 2020, the educational community aspires to be an environment of academic quality and a sense of belonging, focused on the development of artistic, investigative, and technological skills, based on institutional values, and committed to continuous improvement.

The school's up-to-date and well-kept physical infrastructure consists of spacious classrooms, necessary amenities, and a variety of facilities. This extensive setup is composed of 17 classrooms distributed on two floors, eight bathrooms, a library, two courts that are used as playgrounds, two handwashing areas, a computer room, a chemistry lab, a park, a school restaurant, a store, a small space that serves as a stage for social events, a ramp for wheelchair access, access for vehicles, a porter's lodge with a guard, two offices for the rector and coordination, and a teachers' lounge. In this institution, students and teachers move from room to room for each class, each group having a main room for which they are responsible for keeping it clean and tidy. The classrooms are spacious and well-lit, with large

windows and roll-up blinds. Each classroom has 2 fans, a television, the necessary wiring to present in them from a computer, university desks distributed in rows, a desk with a chair for the teacher, trash cans, and various posters with the institutional values.

The English program focuses on improving students' linguistic and cultural competencies within the humanities curriculum. The program states to follow a holistic pedagogical approach supported by Constructivist and Humanist principles. The "Plan de área: humanidades, lengua castellana e idioma extranjero (inglés)" was built around the promotion of students' mother language and English proficiency. Furthermore, the program's implementation is supported by legal mandates such as Article 67 of the Political Constitution of Colombia, the General Education Law, the National Ten-Year Education Plan 2016-2026, and the Municipal Education Plan of Medellín (PEM) 2016-2027. Understanding the program's foundational role within this context is critical for evaluating its success in achieving educational objectives and promoting language skills.

The weekly English classes at IESA are structured around engaging rituals and activities designed to reinforce vocabulary learning and thematic understanding. English classes last between 50 and 60 minutes, in which various daily rituals are practiced. These rituals include a general greeting, and TPR sessions where students follow the teacher with arm movements, and sing and dance together one or two songs related to the theme of the unit of the period. After these, the group proceeds to do a learning activity of the vocabulary of the day supported by PowerPoint presentations and photocopies with black and white drawings where, individually, they must write in color the correct word in English. The teacher chooses the topics based on the institutional area plan and designs her resources and presentations.

This project involved close collaboration with a very experienced teacher who acted as my collaborating teacher (CT). She holds a degree in elementary education from the

Universidad de Antioquia and studied English at the Colombo Americano. Her English proficiency is medium-high, around 65%. She understands and uses the language in the classroom. Yet, she states that she has forgotten some words and jokes when discreetly seeking help to remember them. She has 24 years of work experience, mainly in public education, which she considers her best experience. Her demeanor in front of the students is very firm, often raising her voice in the classroom to gain their attention. However, she also demonstrates a great interest in ensuring her students have fun and learn, as well as seizing small opportunities in the classroom to address social issues or assist her students in times of crisis. Her approach to peers, superiors, parents, and myself was very cordial, and it is common knowledge that she has a very strong presence in the classroom.

The 3rd - 2 group in which I worked is composed of 33 boys and girls between the ages of 8 and 10 who mostly live near the school. They come from low-income families and diverse ethnic backgrounds. It is common to have 2 or 3 students absent each day. The students generally behave respectfully towards the teacher. They participated in class without raising their hands to ask for permission to speak and tended to make a lot of noise so the teacher loudly called their attention numerous times during class sessions. In terms of interest in learning the language, there were mixed positions, some students showed their willingness to learn by engaging in all the class activities while others were usually distracted and struggled to hand in their work. During the classes, they participated in the activities and showed great excitement about the songs, but also tended to quickly forget the topics or display difficulties pronouncing and writing the vocabulary of the units correctly.

Statement of the Problem

Despite English classes focused mainly on interactive singing and word-image matching exercises, students showed very little retention and understanding of the content by the end of the lessons. This lack of progress in their language acquisition could not only obstruct language learning but also affect their general academic success. For that reason, it was crucial to shift the way language was being taught and learned to a more interactive and meaningful approach. By doing so, students' learning process could reflect a more organic language acquisition, enhancing both their linguistic and academic results.

The fact that students show lack of understanding and retention poses several challenges, as vocabulary serves as the essential foundation for language learning (Al Fraidan & Fakhli, 2023). For instance, not being aware of what the language truly conveys could frustrate multicultural interactions, limit academic success, or hinder professional growth. Additionally, when younger students do not understand the meaning of words, their reading comprehension and homework performance suffer, which may result in lower academic achievement and a lack of enthusiasm for learning. Therefore, focusing on real vocabulary comprehension is crucial to ensure that young EFL learners can fully participate in classroom activities, build strong relationships with their peers, and develop positive attitudes toward learning.

During the class observations, it was possible to identify some instances where the students struggled to speak using previously learned vocabulary. The first one, as noted on February the 2nd:

“During the second verse, the video is minimized so that they follow the song without imitating the characters in the video but a great part of the students had difficulty doing so, this can be stated as several of them did not know what part of the body to

move as the song said for example "I move my arms, arms, arms, arms" so there was a lot of looking around and imitation to follow the song."

The fact that the students relied so heavily on visual aids to correctly follow the song they sang in every English class could indicate that they only repeated the musicality of the language yet did not understand any meaning. Furthermore, the fact that they seemed to depend on visual support raised questions about the methods implemented to promote effective language learning. This suggested the need for more active engagement with meaning beyond the resources presented as being able to repeat does not demonstrate learning or understanding.

Similarly, a second instance worth mentioning happened on April 2nd on which it seemed that students in this group often struggled to remember and correctly use the language in real interactions which could impact their ability to understand others and communicate their ideas fluently as they struggle with basic practical applications of the language:

The teacher has to repeat the text many times, and the children have difficulties using the numbers. They know how to count in English from 1 to 10 but when showing them 4 fingers and asking how many fingers there are, they have problems answering. It is difficult for them to use the numbers individually.

Collectively, these cases suggested a pattern in which students may be having difficulty integrating learned material into practical communicative skills, indicating a gap between rote learning and meaningful comprehension. This difficulty may affect their overall ability to participate fluently in English conversations and understand others effectively. It is important to clarify that the activities for the classes were planned in trying to avoid translation. However, to properly understand and learn the language in a more natural way English classes could greatly profit from Ausubel's meaningful learning theory. This theory explains a methodology in which learners incorporate new information by linking it to relevant concepts

already embedded in their cognitive framework (Tarmidzi, 2018; Widodo, 2017). : 22-37). Since the students create connections to previous knowledge, language learning is more natural than old teaching approaches which will enable them to apply their knowledge more effectively in different contexts.

This research aimed to study practical and engaging methods to implement meaningful learning in the 3rd-grade IESA's English class. The main goal was to help students learn the course's content with various activities and strategies that aided them in understanding and remembering the meaning of the concepts in the different units on the institutional plan. These methods were designed to encourage active participation, meaningful interaction, and the application of learned vocabulary in real-life contexts.

Research Question

How can the integration of Ausubel's meaningful learning theory through challenge-based teaching enhance English vocabulary acquisition and retention among 3rd-grade EFL students at IESA?

General objective:

To investigate the extent to which implementation of Ausubel's meaningful learning theory enhances EFL vocabulary acquisition and retention among the 3rd-grade students of IESA.

Specific Objectives:

- To evaluate how Ausubel's meaningful learning theory implemented through challenge-based activities, impacts vocabulary retention and comprehension among 3rd-grade EFL students.
- To explore strategies that shift from rote memorization to meaningful learning, particularly through interactive challenge-based activities in vocabulary instruction.

- To identify specific methods derived from Ausubel's theory, such as connecting new vocabulary to existing knowledge and experiences, that are most effective in teaching English vocabulary to 3rd-grade students within a challenge-based framework.
- To analyze changes in students' engagement and participation in EFL learning when interactive teaching methods are employed in conjunction with challenge-based learning approaches.

Theoretical framework

After analyzing the characteristics and needs of the context, the different theories and concepts that form the basis of this project will be listed. Given this, the central theory of this paper, David Ausubel's meaningful learning theory, and the three necessary conditions for meaningful learning proposed by the author will be defined: Logical and substantial connection, relevant prior knowledge, and intentional learning. These principles stress the necessity of an actual and significant relationship between new ideas and learners' existing cognitive structures, the significance of prior knowledge in connecting new information, as well as students' active engagement in linking new information to their previous knowledge.

Ausubel's theory of meaningful learning was chosen as the primary framework for this study because of its specific relevance to EFL education. Ausubel's focus on meaningful connections between new and existing knowledge is particularly pertinent when students need to link new vocabulary and grammar to what they already know. Ausubel's theory, which emphasizes establishing significant connections, offers a strong basis for creating teaching approaches that can boost vocabulary retention, enhance comprehension, and promote better language usage. Moreover, the theory's focus on students actively engaging and purposefully learning is especially important in EFL settings, where student involvement and motivation are essential for effective language learning.

Meaningful learning

This theory proposed by Ausubel follows a constructivist approach and states the importance of connecting new information to existing knowledge in a non-arbitrary and substantial manner (Yepes Zuluaga, 2024). Previous referents could be an image, an already meaningful symbol, a concept, or a proposition (Ausubel; 1983:18). This is relevant in EFL teaching as teachers could take advantage of designing material and teaching strategies taking into account what students already know, to create stronger and more meaningful connections with the new content that is being taught. Besides, relating new content to students' daily life experiences and their real-life contexts could foster interest and involvement in the learning process. Meaningful learning in language acquisition has many advantages compared to behaviorist methods. Behaviorism emphasizes habit formation by repeating and reinforcing actions, while meaningful learning stresses the significance of linking new information with existing knowledge structures. In the realm of EFL instruction, this differentiation is vital. One of the main propositions of this theory is the avoidance of rote memorization, a method in which students only receive information but do not confer any meaning to it. Additionally, it is important to highlight that Ausubel and Robinson (1971 [1969]) quoted in Kind and Taber (2005) propose three necessary conditions for meaningful learning to occur: the content must be able to connect with a pre-existing cognitive structure logically and substantially, the student must have relevant ideas to relate to the new material, and the student must have the intention to link these ideas with his or her cognitive structure in a coherent and meaningful way (p. 53).

Logical and substantial connections

This section refers to the main idea of the theory which states that there must be a real and meaningful connection between the new concepts and the learner's previous cognitive networks. For learning to be meaningful, the information being taught must not only be

potentially relatable to the learner's pre-existing concepts but also must convey the learner's ability to connect the new information to the preexisting conceptual framework (Taber, 2023) This means that new information should be integrated in a way that makes sense and helps the learner understand the topic. In the context of EFL learning this could be implemented through familiar references for the students using images, sounds, or previously learned concepts that serve as a bridge to the new topic. For instance, a teacher could teach the color "orange" by relating it to fruits and basic colors they already know. Students may answer "yellow" or "red" when asked about the color of an orange fruit shown in a picture. The teacher can explain that orange is a combination of yellow and red, establishing a clear link between the new term and colors already familiar to the students. To create a strong bond, the teacher could ask students to locate orange items in the room or think about orange objects they encounter regularly, like mangoes or a setting sun. This method connects the recently introduced word to the students' prior knowledge and personal experiences, enhancing the significance of the term and aiding them in recalling and applying it appropriately thus facilitating meaningful learning.

Relevant prior knowledge

This principle states that for meaningful learning students must have prior knowledge relevant to the new information to link it. It also states that the material must be relatable to the cognitive structure and the learner must have the necessary prior knowledge to make that relationship in a non-arbitrary and non-literal way (Moreira, 2016). In EFL vocabulary acquisition, this principle is particularly crucial as students often come to the classroom with existing knowledge of their native language and possibly some English words. Teachers must establish what this prior knowledge is and scaffold around it to facilitate meaningful connections. By consistently activating and building upon relevant prior knowledge, EFL

teachers can create more meaningful connections for students, leading to more effective vocabulary acquisition and retention.

Intentional learning

According to Agra et al. (2019), intentional learning requires students to actively connect new information to relevant existing ideas within their cognitive framework. This concept refers to students' active desire to learn and their commitment to bridging new information with what they already know. For this, motivation and attention grabbers are crucial as they direct students' attention to the goal of the class: learning. Teachers could set up activities with students that encourage curiosity and active participation, such as role-playing games or treasure hunts. Additionally, it is important to design lessons around topics of interest to them and maintain a constant environment of positive reinforcement to foster their engagement and commitment.

Challenge-Based Learning

This approach encourages learners to cooperative problem-solving of realistic challenges, closely fitting with Ausubel's idea of linking new knowledge to pre-existing cognitive frameworks (Johnson et al., 2009). The three phases of CBL - Engage, Investigate, and Act - connect with Ausubel's conditions for meaningful learning: logical and substantial connections, relevant prior knowledge, and intentional learning (Membrillo-Hernández et al., 2019). During the Engage phase, students face open-ended tasks that encourage curiosity and the creation of connections with their existing knowledge. The investigative phase engages and employs students' prior knowledge as they research and analyze information. The Act phase fosters active participation and meaningful learning as teams create and execute solutions (Johnson & Adams, 2011).

Integrating CBL into EFL instruction offers numerous advantages: increased student motivation and engagement, contextualized learning, active knowledge construction, and the

development of skills for the 21st century (Nichols et al., 2016). The combination of CBL with Ausubel's concepts provides a solid foundation to boost EFL instruction, especially for young learners during the crucial initial phases of language learning. It establishes a learning environment that conforms with Ausubel's meaningful learning theory while fostering active involvement and contextual comprehension (Johnson et al., 2009).

Action plan

The purpose of this action plan was to improve language acquisition and retention for grade 3 EFL students at IESA through activities based on Ausubel's meaningful learning theory. This section outlines the actions intended for implementation in this study, the rationality behind it, and the data collection methods.

The actions suggested were meant to involve learners in interesting activities that bridged new language content with their existing cognitive frameworks to enhance deeper understanding and retention. This project sought to move from rote memorization of English words to meaningful language learning experiences that enabled students to apply their linguistic knowledge across different settings with confidence. Data was gathered through class observation notes, student work samples, and reflective journals supplemented by an interview with the CT to establish if the project improved language skills and attitudes toward English learning.

Thematic units in this action plan include animals and their habitat; environmental factors like air pollution, and water pollution; human activities like positive and negative environmental human actions, environmental degradation, etc., which were part of the curriculum objectives. Although not specifically mentioned in the program, all sessions allocated a segment at the beginning of each session for a greeting song we always performed together, a routine instituted by the CT to aid students' language acquisition.

Table 1

Initial Unit Plan

Week	Action	Teaching Objectives	Research Objectives	Data Collection
1	Presenting the project to students and sharing consent forms. Vocabulary introduction, interactive game	Introduce basic vocabulary related to animals and habitats	Observe initial vocabulary acquisition and student engagement	Observation, journal entries, consent forms
2	Vocabulary expansion, group discussion	Expand vocabulary to include environmental elements	Assess understanding of environmental vocabulary and group interaction	Observation, journal entries
3	Role-play, discussion	Introduce vocabulary related to negative human actions	Evaluate students' ability to discuss and role-play negative actions	Observation, journal entries
4	Interactive story, creative activity	Introduce vocabulary related to positive human actions	Analyze student engagement with positive actions and creative expression	Observation, journal entries
5	Group project, presentation	Integrate knowledge of animals, habitats, and environmental elements	Assess integration and presentation skills	Observation, journal entries
6	Debate, writing activity	Discuss the impact of human actions	Evaluate critical thinking and writing abilities	Observation, journal entries
7	Case study, group discussion	Highlight the benefits of positive human actions	Assess understanding of case studies and benefits discussion	Observation, journal entries
8	Project work, reflection	Synthesize and apply knowledge	Evaluate synthesis of learned concepts	Observation, journal entries
9	Presentation preparation	Prepare for final presentations	Assess readiness and preparation skills	Presentation preparation
10	Presentations, Q&A, reflection	Present projects and reflect on learning	Evaluate overall learning and ability to articulate understanding	Presentations, journal entries

Development of Actions

Due to various logistical and health-related impediments, the initial environmental unit planned for the third academic period had to be suspended. As such, efforts were shifted toward providing support to the Cooperating Teacher (CT) with materials design, classroom assistance, and monitoring. Besides, the fact that the CT had already begun teaching the unit independently constituted the impossibility of continuing the research from the midperiod. Thus, our focus shifted toward continuing the observation and documenting of EFL teaching and learning aspects in the third-grade classroom. This two-month interval provided valuable insight into the need for more interactive activities to increase student engagement and information retention. This realization prompted increased interest in incorporating gestures to symbolize words during planning sessions.

A new eight-class unit was devised for the fourth period, focused on technology vocabulary and descriptive adjectives. This unit involved meaningful learning principles as well as a challenge-based approach, with each session beginning with a welcoming song. However, given the student's proficiency level and time constraints, some activities seemed ambitious. Furthermore, the CT warned about potential cancellations due to administrative activities, year-end events, or social factors like strikes or rallies. Due to these circumstances, the unit was modified in order to omit advanced content and incorporate more engaging activities.

Under the CT instructions, presentations and illustrated handouts were prepared to align with the established teaching methodology. Gesture association was the main strategy implemented to make subtle modifications in the new unit aiming to increase retention and learning without drastically altering familiar dynamics. Thus, the revised unit maintained an eight-class structure, beginning with technology vocabulary taught through images and

gestures, followed by consolidation activities, introduction of descriptive adjectives, sentence creation exercises, and ending with an interactive review session.

Unforeseen circumstances caused additional disruptions to the planned schedule, as institutional events, strikes, and medical leaves led to over 50% decreases in the designated English session time. Additionally, the classes planned to run for 50-60 minutes were frequently cut short by these disruptions. Consequently, only three of the eight planned interventions were ultimately implemented: technology vocabulary from week 1 plan, adjectives from week 3, and integration of both subjects through short sentence creation from week 5. Furthermore, two evaluation sessions were conducted, yielding a total of five action moments throughout this research period, which allowed for the assessment of student progress despite the challenges faced.

First Intervention: Introducing Tech Vocabulary

Beginning this session by building upon their prior knowledge of technology vocabulary themes, students engaged actively in compiling a list of familiar technological objects. Questions of "What is this?" and "What is that?" previously learned by the students, were included throughout the class in order to connect new content with existing knowledge. Building upon this foundation, the class then engaged in a negotiation about each gesture to be created to represent specific objects without using Spanish. This new approach resulted in a remarkable transformation among the students who enthusiastically proposed gestures for every term proposed, showing a significant increase in their engagement.

Although time constraints prevented a planned association activity from taking place, the session ended successfully with an engaging review led by student volunteers. At this review, participants demonstrated extraordinary enthusiasm and a strong grasp of the class topic, each of them recalling three to four terms studied that day with confidence. Students' eager participation and keen understanding of the material not only illustrated the

effectiveness of implemented strategies but also demonstrated a departure from their usually timid attitudes. This proved that engagement strategies had succeeded in engaging students and providing meaningful learning opportunities, underscoring this session's overall success at creating an interactive and productive learning environment.

Second Intervention: Adjectives for Technology

This session began by reviewing vocabulary learned during the previous session, intended to be reinforced through a bingo game incorporating gestures. Unfortunately, due to time constraints, this activity had to be omitted in favor of implementing Week 3's plan: adjectives used to describe technological objects. In line with the first session, this class was conducted engaging students in negotiations for the gestures for each term, while also reviewing technological terminology through attention-grabbing methods. The primary method used as activation was an open debate about adjectives in Spanish. Although FL classes are the ideal time to practice target languages, using the mother tongue as a starting reference can significantly enhance retention and meaningful learning experiences.

Minor modifications were made in the presentation by showing various objects or characters representing each adjective and prompting students to discuss similarities or differences, leading them to make logical associations between concepts reinforced by visual aids pasted in students' notebooks and the gestures created. Students eagerly participated, so much so that this caused minor disruptions to classroom management; during volunteer-led review students took an enthusiastic lead, leading the group and demonstrating concepts through gestures and verbal expression. However, an association activity linking phrases with adjectives had been planned but time constraints prevented its implementation.

Third Intervention: Interactive Tech Assessment

With the unit program already moved, the reinforcement session for the adjective vocabulary planned for this session also had to be omitted to make way for the institutional

evaluation week where all teachers had to collect mid-term grades. Due to this, the CT decided to take charge of evaluating the students' learning through an interactive game on Kahoot! consisting of 12 multiple-choice questions about the technology vocabulary and adjectives learned. In general, the class developed without incident.

This session brought evidence of an improvement in the students' process since, in the words of the CT, "in previous periods, similar mechanisms to evaluate very similar topics yielded low results, while now most of the students demonstrated high performance, having only 4 failures for the entire course."

Fourth Intervention: From Words to Sentences: Applying Tech Vocabulary in Context

Adapting to time constraints, we quickly progressed through week 5's plan by integrating technology vocabulary and adjectives through the creation of short phrases. The session began with an open-question review where students demonstrated retention of prior topics and their associated gestures. To bridge these themes we created two lists - nouns and adjectives - on the board and guided students in connecting them together, leading naturally into a discussion on the use of adjectives to describe the objects.

At this point, students were presented with images representing both technology vocabulary and the adjectives learned. They were then challenged to construct simple oral sentences to answer "What is this?" or respond to "Please describe" relying solely on the visual aids. We provided constant guidance and clarity during this exercise while encouraging gesture-based recall of concepts. Their performance markedly improved and was proven as they created grammatically correct sentences while showing genuine understanding - an enormous improvement compared to when they frequently forgot or repeated words phonetically without understanding their true meaning.

As a strategy to reinforce the topic, students engaged in a creative challenge of designing "lost object" posters. Each poster described an object using at least one adjective

with the intention of asking for help to find it from an English-speaking person without Spanish knowledge. This 5-minute activity sparked great interest among the participants, most of them eager to show their creations to fellow classmates. The poster socialization served as an effective review and closure that not only consolidated their understanding but also fostered enthusiasm for using English in practical contexts.

Fifth Intervention: Conclusive Evaluation

Since we were very close to the end of the academic calendar this intervention marked the conclusion of the implemented unit. Therefore, it was necessary to carry out an exhaustive evaluation of the students' learning results. The CT had assumed the task of creating the assessment instrument, for which she selected a multiple-choice quiz to evaluate the understanding of the technology terminology and descriptive adjectives addressed over the term. This evaluation consisted of a 10-item multiple-choice questionnaire designed to measure multiple characteristics of the taught subjects. The objective was to assess students' comprehension of technology vocabulary, descriptive adjectives, their capacity to correctly use adjectives for describing technological items, and their understanding of short phrases that integrated technical language and descriptive adjectives.

The assessment's results were notably positive, demonstrating that the implemented strategies proved to be effective. The high pass rate, with only two students receiving failing grades, showed a significant improvement relative to previous academic periods. The majority of the class displayed a good understanding of the content and showed significant success in the area. Additionally, the results of the interactive sessions and the Kahoot! quiz further validates the effectiveness of the teaching methods and strategies implemented during the unit, which offers concrete evidence of the students' progress both in their comprehension and application of the taught topics.

Data Analysis

This research required several key steps in the data analysis process to ensure a thorough and rigorous examination. The analysis was based on three main processes, categorization and comparison, as well as validation.

Categorization

The first step of the analysis was to categorize the data collected. The data collected from class observation notes, student work samples, and reflective journals was organized into categories. These categories were developed using recurring patterns and themes from the data such as student engagement and language acquisition progress.

Comparison

After categorization was completed, a comparison analysis was performed. This process involved examining data at different time points during the intervention period. Comparing observations, student work, and reflective notes at the beginning, mid-point, and end of the project allowed us to identify trends and changes. This comparative approach helped to understand the project's impact in time.

Validation

A validation process was implemented to enhance the reliability and accuracy of the findings. This involved triangulating the data from multiple sources in order to confirm observations and conclusions. The interview with the CT was a key element in the validation process. This provided an additional perspective on the project's efficacy in improving language skills, and attitudes toward English learning, and the effectiveness of the project. The qualitative analysis involved a thorough review of observation notes and reflection journals aiming to identify recurring patterns and themes in student behavior.

Findings and Interpretations

Student Participation and Personal Connections: Catalysts for Meaningful Learning

The implementation of meaningful learning strategies significantly improved student engagement and participation in the EFL classroom. This section examines how these strategies facilitated personal connections with the subjects, enhanced students' vocabulary retention, and promoted active participation among third-grade students at IESA.

Raising students' interest in the classes greatly impacted the learning environment. They started supporting others and volunteered to participate more, which shows greater confidence and motivation to learn. During a review activity, several students volunteered without clarification about what was the next activity (Journal entry #2 - 24/09/2024), this represented a major change from the previously shy group from the beginning of the research. Moreover, the classroom environment transformed into one of mutual support, with students actively encouraging their peers and offering their assistance when needed. Students would discreetly gesture to help their classmates recall some terms or to encourage those hesitant to lead the review activities (Journal entry #1 - 23/09/2024). These instances align with Ausubel's concept of intentional learning which is essential for facilitating meaningful learning (Ausubel, 1968) as their willingness to learn and their desire to offer support to their peers constitute live evidence of one of the main pillars in the author's theory.

Furthermore, as the research advanced students exhibited the capacity to relate personal experiences to the subjects, a crucial element of meaningful learning. This link between personal experiences and new knowledge is essential for producing enduring and lasting learning results. This could be noted during a technology vocabulary session, in which some students shared the gadgets they have at home, being able to name them in English when asked (Journal entry #2 - 24/09/2024). They also demonstrated a keen interest in using their newly obtained knowledge by making remarks throughout the presentation with the newly

learned adjectives like "yo tengo un gato big" or "profe, profe, mi mamá es muy beautiful". (Journal Entry #4 - 30/09/2024). These comments highlight the students' capacity to integrate external information with the lesson, enhancing their likelihood of retaining and comprehending the concepts being taught in the lesson.

During the review sessions at the beginning of the interventions and throughout the lessons, students showed an incremental improvement in the retention and understanding of the topics. The majority of the group was able to answer about previously learned content and helped to reinforce the concepts with which their peers struggled, something that was rarely seen in earlier stages of the research. Additionally, the shift in learners from initially timid and uninterested students to engaged participants in their studies highlights the efficacy of meaningful learning tactics in promoting involvement and academic advancement in the EFL classroom.

In conclusion, applying meaningful learning practices significantly enhanced student engagement in the EFL classroom. It was possible to improve students' understanding and retention of knowledge by offering them opportunities to connect the subjects with their own experiences. These findings highlight the usefulness of including meaningful learning strategies and collaborative activities in EFL teaching methods, particularly for young learners.

The role of Gesture Association to improve retention and Meaningful Learning

The incorporation of gestures in vocabulary teaching has proven to be an effective strategy for increasing student engagement and improving information retention. This section explores how gesture-based techniques enhanced vocabulary acquisition and retention among 3rd-grade EFL students at IESA.

Gestures were created and used throughout the whole implementation process as tools for explanations, reviews, and classroom management, linking physical cues to the linguistic

content being taught, thus facilitating deeper cognitive connections. This approach aligns with Ausubel's theory of meaningful learning, which emphasizes creating relatable and enduring associations in educational contexts. Observations during the implementation period revealed significant improvements in students' willingness to participate and their ability to recall vocabulary from previous sessions, demonstrating two critical advancements in their learning processes (Journal entry #6 - 01/10/2024). These findings are consistent with the research of Macedonia and Knösche (2011), who demonstrated that gesture integration can significantly reinforce memory retention and language acquisition. By providing a multisensory learning experience, this methodology not only increased student engagement but also contributed to long-term retention of vocabulary.

The effectiveness of this approach was also evident when students changed from not being able to remember most of the content previously learned, to having the capacity to list and recall several concepts during the activities and reviews. For instance, after the first exposure to the hello song that was chosen for the whole period, students employed gestures to represent new concepts like "handshake" or "fist bump" and in later sessions easily recalled the greetings, illustrating how gestures facilitate vocabulary acquisition by linking physical actions to meanings. This aligns with the embodied cognition paradigm, which states that cognitive processes have their basis in sensory-motor experiences (Barsalou, 2008).

The students' role in creating gestures for new vocabulary boosted their motivation for participating in class and improved their understanding. At every session, the students proposed gestures for the new vocabulary, which helped them to take responsibility for their learning. Such drive is an example of the theory of self-determination which stresses the relevance of autonomy in motivation and learning processes (Ryan & Deci, 2000). Besides, Goldin-Meadow (2003) in her cognitive psychology studies, states that the integration of gestures in language learning significantly improves information retention and recall. This

occurrence is caused by gestures aiding to create connections between physical movements and language information leading to better learning outcomes.

In summary, gesture-based methods in vocabulary training significantly improved active participation, retention, and learning outcomes. This methodology, grounded in Ausubel's theory and supported by cognitive psychology research, demonstrates the potential for innovative, interactive techniques in EFL courses.

Challenges to implementing CBL in the classroom

Even though the use of Challenge-Based Learning (CBL) in the classroom holds opportunities, several challenges can pose risks to its success. This section focuses on the difficulties experienced during the application of CBL methodology with the third-grade students at IESA, focusing on the time constraints, unforeseen circumstances, and the changes that these caused to the CBL implementation process.

The execution of Challenge-Based Learning (CBL) in the classroom met numerous obstacles, primarily with time limitations and unforeseen situations. These problems underscore the significance of flexibility and adaptability in educational methodologies, as articulated by Bransford et al. (2000) in their research on *How People Learn*. The primary barrier to conducting the CBL procedures was the erroneous estimation of how much time was necessary for each session, confirming the observations of Gallagher and Gallagher (2013), who indicated that time management frequently poses a considerable barrier in project-based learning methodologies. Moreover, some lessons were canceled due to schedule issues and other unexpected events, like institutional programs displacing English classes or sick absences from both the CT and me. Consequently, merely two of the proposed challenges were executed during the unit.

CBL tasks proved to be powerful tools for fostering meaningful learning experiences, despite implementation challenges. These tasks allowed students to engage actively with the

content, promoting skills that align with meaningful learning principles. For instance, assigning students the task of describing a missing object without using Spanish, requiring them to illustrate and write short descriptions in their notebooks within a five-minute timeframe. This exercise fits in the concepts of active learning, which Bonwell and Eison (1991) claim fosters higher-order thinking and enhanced engagement with the content. Throughout this assignment, students exhibited critical thinking and language application skills. Although not all intended activities were executed, those that were indicated potential. The collaborative aspect of the lost item challenge corresponds with the social constructivist learning theory, which asserts that knowledge is developed through social interaction (Palincsar, 1998). Students participated in peer learning, enhancing confidence and consolidating vocabulary while collaboratively addressing the issue.

In conclusion, although the full implementation of CBL saw difficulties, the insights acquired illustrated the capacity of this methodology to foster chances for significant learning through active participation and engagement. These findings advocate the adoption of pedagogical strategies that emphasize student-centered, challenge-based methodologies to improve the overall learning experience, as proposed by Savery (2006) in his research on problem-based learning.

Conclusion and Suggestions

This research has served to demonstrate the potential and positive impact of integrating Ausubel's meaningful learning theory and challenge-based activities for EFL teaching. Despite implementation challenges, the study unveiled substantial benefits in vocabulary acquisition, concept retention, and general engagement of third-grade students at IESA.

The findings highlight the fact that gesture-based techniques when in line with Ausubel's theory, enhance vocabulary learning without disrupting established classroom dynamics. This approach offers a practical and innovative method for teachers seeking to

enrich instruction without drastically altering existing practices. Furthermore, challenge-based activities, even if applied on a restricted scale, effectively stimulate learner interest and engagement, fostering a more interactive and meaningful learning environment. The combination of gestures and challenges fosters deeper cognitive connections, contributing to a dynamic and stimulating classroom environment.

In addition, the study underscores the critical role of adaptability in educational approaches and the value of incorporating varied strategies to enhance the teaching of English as a foreign language. Although the full implementation of the challenges planned was not possible due to several limitations, the results underscore their potential for creating meaningful learning experiences. These ideas are an indication of the necessity for flexible methodologies that balance innovative practices with the practical realities of the classroom.

Going forward, educators may want to prioritize the integration of gesture-based associations into class activities to enhance students' learning outcomes. Successful implementation of this method requires balancing creative approaches with the possible logistical limitations that could occur while focusing on building meaningful connections between new vocabulary and learners' prior knowledge, in line with Ausubel's theory of meaningful learning.

This research contributes to the current dialogue on effective EFL teaching methodologies, underscoring the need for engaging, learner-centered strategies that promote active learning and long-term retention. Future studies could explore the optimization of these methods in various educational contexts, refining the application of gesture- and challenge-based learning. These findings lay the groundwork for further innovation and improvement of language teaching practices, especially in contexts similar to IESA.

Reflection

Conducting this research project was an incredibly rewarding and enlightening experience. It was a journey in which I was able to put into practice some of the theoretical knowledge acquired throughout my academic career while also facing the realities of teaching in our context, with moments that were both gratifying and unexpectedly challenging. I had the opportunity to confront and overcome various fears and doubts about my abilities, which now leaves me feeling much more confident and prepared to take on my role as a teacher.

I am fully confident that the satisfaction of seeing such positive changes in how my students improved their relationship with learning English will stay with me throughout my professional life. Furthermore, I believe my time at San Agustín left a positive impact, confirming that small adjustments in teaching practices can bring about significant transformations in the way students perceive and engage with their studies.

I am aware that completing this process is only the first step on my journey to becoming a great teacher. I still have much to learn, improve, and refine, which is why I will dedicate all my effort and commitment to continuing to grow, perfect my practice, and consistently strive to create positive changes in the lives of my students and colleagues.

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